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The Memory Palace of Matteo Ricci

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BUILDING THE PALACE

In 1596 Matteo Ricci taught the Chinese how to build a memory palace. He told them that the size of the palace would depend on how much they wanted to remember: the most ambitious construction would consist of several hundred buildings of all shapes and sizes; "the more there are the better it will be," said Ricci, though he added that one did not have to build on a grandiose scale right away. One could create modest palaces, or one could build less dramatic structures such as a temple compound, a cluster of government offices, a public hostel, or a merchants' meeting lodge. If one wished to begin on a still smaller scale, then one could erect a simple reception hall, a pavilion, or a studio. And if one wanted an intimate space one could use just the corner of a pavilion, or an altar in a temple, or even such a homely object as a wardrobe or a divan.¹

In summarizing this memory system, he explained that these palaces, pavilions, divans were mental structures to be kept in one's head, not solid objects to be literally constructed out of "real" materials. Ricci suggested that there were three main options for such memory locations. First, they could be drawn from reality—that is, from buildings

that one had been in or from objects that one had seen with one's own eyes and recalled in one's memory. Second, they could be totally fictive, products of the imagination conjured up in any shape or size. Or third, they could be half real and half fictive, as in the case of a building one knew well and through the back wall of which one broke an imaginary door as a shortcut to new spaces, or in the middle of which one created a mental staircase that would lead one up to higher floors that had not existed before.

The real purpose of all these mental constructs was to provide storage spaces for the myriad concepts that make up the sum of our human knowledge. To everything that we wish to remember, wrote Ricci, we should give an image; and to every one of these images we should assign a position where it can repose peacefully until we are ready to reclaim it by an act of memory. Since this entire memory system can work only if the images stay in the assigned positions and if we can instantly remember where we stored them, obviously it would seem easiest to rely on real locations which we know so well that we cannot ever forget them. But that would be a mistake, thought Ricci. For it is by expanding the number of locations and the corresponding number of images that can be stored in them that we increase and strengthen our memory. Therefore the Chinese should struggle with the difficult task of creating fictive places, or mixing the fictive with the real, fixing them permanently in their minds by constant practice and review so that at last the fictive spaces become "as if real, and can never be erased."²

How on earth had such a system first evolved, the Chinese might well have asked, and Ricci anticipated the question by summarizing the ancient Western tradition that ascribed the idea of memory training through precise placement to the Greek poet Simonides. As Ricci explained (giving the nearest approximation he could provide in Chinese for the poet's name):

Long ago a Western poet, the noble Xi-mo-ni-de, was gathered with his relatives and friends for a drinking party at the palace, among a

dense crowd of guests. When he left the crowd for a moment to step outside, the great hall came tumbling down in a sudden mighty wind. All the other revelers were crushed to death, their bodies were mangled and torn apart, not even their own families could recognize them. Xi-mo-ni-de, however, could remember the exact order in which his relatives and friends had been sitting, and as he recalled them one by one their bodies could be identified. From this we can see the birth of the mnemonic method that was transmitted to later ages.³

It was this general facility for remembering the order of things that had been elaborated into a system over the succeeding centuries; by Ricci's time it had become a way for ordering all one's knowledge of secular and religious subjects, and since he himself was a Catholic missionary Ricci hoped that once the Chinese learned to value his mnemonic powers they would be drawn to ask him about the religion that made such wonders possible.

Matteo Ricci had traveled a long road in order to win this chance to present his mnemonics to a scholarly Chinese audience. An Italian, born in the hill town of Macerata in 1552, Ricci became a novice in the Jesuit order in Rome in 1571 and, after extensive training in theology, humanities, and science, followed by a five-year apprenticeship in India and Macao, entered China in 1583 to undertake mission work. In 1595, by which time he had become fluent in the Chinese language, he took up residence in the prosperous administrative and commercial center of Nanchang, in the eastern province of Jiangxi.⁴ At the very end of 1595 he gave expression to his newfound confidence in his own language skills by writing out, in Chinese ideographs, a book of maxims on friendship drawn from various classical authors and from the church fathers. He presented this manuscript to a prince of the Ming ruling house who was living in Nanchang and had frequently invited him to his palace for drinking parties.⁵ At the same time he was beginning to discuss his theories on memory with local Chinese scholars and to give lessons in mnemonic techniques.⁶ His description of the memory palace can be found in a short book on the art of memory which he wrote out in Chinese the following year and gave as a present

Concept of
Spatial mem.:
"the farthest
thing from
my mind"
indeed!!

to the governor of Jiangxi, Lu Wangai, and to Governor Lu's three sons.⁷

The family that Ricci was seeking to instruct in mnemonic skills stood at the apex of Chinese society. Governor Lu himself was an intelligent and wealthy scholar who had served in a wide variety of posts in the Ming dynasty bureaucracy. He knew the country well, for he had been stationed at various times in the far southwest, on the east coast, and in the north, and he had performed with distinction in each of the main areas of Chinese administration: the judicial, the financial, and the military. Now he had reached the peak of his career, as a provincial governor, and was preparing his three sons for the advanced government examinations; he himself had passed these exams with distinction twenty-eight years before, and knew along with all his contemporaries that success in the exams was the surest route to fame and fortune in the imperial Chinese state.⁸ Thus we can be almost certain that Ricci was offering to teach the governor's sons advanced memory techniques so that they would have a better chance to pass the exams, and would then in gratitude use their newly won prestige to advance the cause of the Catholic church.

In the event, however, though the governor's children did extremely well in the exams, this does not seem to have been because of Ricci's mnemonic methods but rather because of diligent study along traditional Chinese lines of repetition and recitation, aided perhaps by the mnemonic poems and rhyming jingles that were part of current Chinese memory practice.⁹ As Ricci wrote later that same year to the general of the Jesuit order, Claudio Acquaviva, the governor's eldest son had read the memory book with care, but had remarked to one of his confidants that "though the precepts are the true rules of memory, one has to have a remarkably fine memory to make any use of them."¹⁰ And in a letter to a friend in Italy with whom he had first written out the rules for building memory palaces, Ricci observed that, although the Chinese in Nanchang "all admired the subtlety of the system, not all of them were willing to take the trouble to learn how to use it."¹¹

Ricci himself saw nothing odd or particularly difficult in building

memory palaces. He had grown up with them, together with a whole range of other techniques for fixing the subjects of one's schooling in the memory. Moreover, these skills were a fundamental part of the curriculum that Ricci had studied in his classes on rhetoric and ethics at the Jesuit College in Rome. Ricci was probably introduced to the idea of memory palaces by way of the scholar Cypriano Soarez; whose textbook on the basic lessons of rhetoric and grammar, the *De Arte Rhetorica*, was required reading for Jesuit students in the 1570s.¹² After leading his readers through the fundamentals of classical usage and sentence structure, and giving them examples of tropes and metaphors, metonymy, onomatopoeia, and metalepsis, allegory, irony, and hyperbole, Soarez introduced them to the art of memory placement, which he ascribed to Simonides and called the root of all eloquence, the "*thesaurus eloquentiae*." He noted how the system held words in order as well as things, and could be used for an "infinite progression" of terms. The students should practice creating dramatic images of various kinds, and designing locations for them: palatial buildings or spacious churches would be among the best.¹³

But such vague suggestions would hardly give one the full range of memory techniques, or even the principles behind them. Ricci would have learned the details from several other authors. One would have been Pliny, whose *Natural History* Ricci also read in school, and whose passage on the great memory experts of the past he translated into Chinese in his 1596 memory book.¹⁴ Others would have been several writers of the first century B.C. and the first century A.D., such as the author of a Latin work on rhetoric called *Ad Herennium*, or Quintilian, who wrote about memory in his handbooks on oratory. These books gave detailed information on how to construct memory buildings and the images one would place in them. As the author of *Ad Herennium* explained:

We ought, then, to set up images of a kind that can adhere longest in the memory. And we shall do so if we establish likenesses as striking as possible; if we set up images that are not many or vague, but doing

something; if we assign to them exceptional beauty or singular ugliness; if we dress some of them with crowns or purple cloaks, for example, so that the likeness may be more distinct to us; or if we somehow disfigure them, as by introducing one stained with blood or soiled with mud or smeared with red paint, so that its form is more striking, or by assigning certain comic effects to our images, for that, too, will ensure our remembering them more readily.¹⁵

Such a description carried particular force, since throughout the Middle Ages the author of *Ad Herennium* was believed to be the revered Cicero himself.

Quintilian elaborated on the same topic by explaining what sort of places one would use to store the images one had chosen:

- The first thought is placed, as it were, in the forecourt; the second, let us say, in the living room; the remainder are placed in due order all round the *impluvium* and entrusted not merely to bedrooms and parlours, but even to the care of statues and the like. This done, as soon as the memory of the facts requires to be revived, all these places are visited in turn and the various deposits are demanded from their custodians, as the sight of each recalls the respective details. Consequently, however large the number of these which it is required to remember, all are linked one to the other like dancers hand in hand, and there can be no mistake since they join what precedes to what follows, no trouble being required except the preliminary labour of committing the various points to memory. What I have spoken of as being done in a house, can equally well be done in connection with public buildings, a long journey, the ramparts of a city, or even pictures. Or we may even imagine such places to ourselves.¹⁶

Despite these attempts at explanation, the system sounds elusive and abstract to readers today. But if we digress a moment to provide a modern focus and context, perhaps we can sharpen our view of how Ricci sought to interest the Chinese in his memory theories by creating combinations of images, fixed in place, which through an association of

ideas or a specific mnemonic rule would in turn yield, instantly, a required piece of information. Let us imagine a modern medical student facing an oral examination that reviews her work on bones, cells, and nerves. The student has in her head a whole memory city, neatly laid out in wards, streets, lanes, houses, containing all the knowledge she has acquired so far in her schooling; but facing the examiners she pays no attention to the wards of history, geology, poetry, chemistry, and mechanics. Her energy is concentrated on the three-story Physiology House in Body Lane, where, in separate rooms, the disparate, powerful, evocative images she has been creating in each evening of study are in place—around the walls, between the windows, on chairs, beds, tables. Three questions are fired at her: she must name the bones of the upper limbs, the stages of cell division in meiosis, and the order of nerves passing through the superior orbital tissue in the skull. Her mind races to the Upper Body Bone Room, at the top of the stairs on the second floor, where, in the third position from the door, a Canadian Mountie in a brilliant scarlet jacket sits on his horse with a manacled, distraught figure tied to the horse's crupper: from there it takes her only a fraction of a second to glide to the Cell Room in the basement where, near the furnace, a magnificent but savagely scarred African warrior is standing, a look of ineffable boredom on his face, despite the fact that he grasps with each huge hand the upper arm of a beautiful African girl; and as swiftly the student's thoughts wing to the top floor Skull Room where, reclining on a bedspread patterned on the stripes and colors of the flag of France, a voluptuous naked woman reclines, her little fist clutching a crumpled stack of dollar bills. The student's answers to the three questions come quickly. The image of the Mountie and his captive has at once given her the sentence *Some Criminals Have Underestimated Royal Canadian Mounted Police*, the first letter of each word yielding the correct list of scapula, clavicle, humerus, ulna, radius, carpals, metacarpals, and phalanges. The second image, of the *Lazy Zulu Pursuing Dark Damosels*, gives the student the stages of cell division in meiosis as leptotene, zygotene, pachytene, diplotene, and diakinesis. The third

image, the *Lazy French Tart Lying Naked In Anticipation*, yields the order of nerves in the skull's upper orbital tissues, to wit, the lacrimal, frontal, trochlear, lateral, nasociliary, internal, and abducens.¹⁷

In a medieval or late Renaissance world similar techniques would have had a different focus, and the images would have been appropriate to the times. As early as the fifth century A.D. one finds the philosopher Martianus Capella writing that Psyche, at her birth, had been given the most lovely presents, including "a vehicle with swift wheels"—the gift was Mercury's idea—"in which she could travel at an astonishing speed, although Memory bound it and weighed it down with golden chains." These were the chains of memory that stood for the stabilizing force of intellect and imagination on the human soul; they were not meant to be a metaphor for any idea of stasis.¹⁸ And how sharp still, more than a millennium later, must have been for Ricci and his contemporaries the memory image of Rhetoric as Capella painted her, that woman with "so rich a wealth of diction, so vast a store of memory and recollection," who held memory in her domain. Here was fifth-century Rhetoric:

A woman of the tallest stature and abounding self-confidence, a woman of outstanding beauty; she wore a helmet, and her head was wreathed with royal grandeur; in her hands the weapons which she used either to defend herself or to wound her enemies, shone with the brightness of lightning. The garment under her arms was covered by a robe wound about her shoulders in the Latin fashion; this robe was adorned with the light of all kinds of devices and showed the figures of them all, while she had a belt under her breast adorned with the rarest colors of jewels.

Each decoration of her robe—light, devices, figures, colors, jewels—referred to aspects of rhetorical ornament and would be retained forever by the student who kept her in his head.¹⁹ And how perfect was the contrast between this glowing figure of Rhetoric and the terrible figure of Idolatry, given *her* lineaments by the fifth-century theologian and

mythologist Fulgentius and then updated into a Latin mnemonic jingle by the fourteenth-century monk Ridevall. For Idolatry was depicted as a prostitute, a trumpet blaring above her head to give notice to all of her condition. Summoning up this figure from her resting place when the topic of idolatry had to be broached, one would at once recall the salient points of theological argument: she was a harlot because the unfaithful have abandoned God and fornicated with idols; she was blind and deaf because Fulgentius had taught that the first idol had been a dead son's likeness made by slaves to lessen the grief of the child's father, and she was blind and deaf to the true belief that should have banished such superstitions.²⁰

How many such images could one or did one seek to retain in the memory palaces of one's mind? Ricci wrote quite casually in 1595 of running through a list of four to five hundred random Chinese ideograms and then repeating the list in reverse order, while Chinese friends described him as being able to recite volumes of the Chinese classics after scanning them only once.²¹ But such feats were not particularly startling: Francesco Panigarola, an older contemporary who may have taught Ricci memory arts either in Rome or in Macerata—the manuscript draft of Panigarola's little tract on memory method still reposes in the Macerata library—was described by acquaintances in Florence as being able to roam across a hundred thousand memory images, each in its own fixed space.²² As Ricci, echoing the past books on memory, told Governor Lu Wangai, it was the order and sequence of the places ready for images inside each building that were crucial to the mnemonic art:

Once your places are all fixed in order, then you can walk through the door and make your start. Turn to the right and proceed from there. As with the practice of calligraphy, in which you move from the beginning to the end, as with fish who swim along in ordered schools, so is everything arranged in your brain, and all the images are ready for whatever you seek to remember. If you are going to use a great many [images], then let the buildings be hundreds or thousands of units in

extent; if you only want a few, then take a single reception hall and just divide it up by its corners.²³

In her wonderfully erudite and comprehensive work on medieval and Renaissance mnemonic theory, *The Art of Memory*, Frances Yates mused over "what a Christianized artificial memory might have been like" and regretted the fact that "an *Ars memorativa* treatise, though it will always give the rules, rarely gives any concrete application of the rules, that is to say it rarely sets out a system of mnemonic images on their places."²⁴ Matteo Ricci's Chinese version of a memory system cannot totally fill these lacunae, but it does give us a sense of how the traditional memory system could be adhered to on the far side of the globe.

Furthermore, Ricci has left us, in his Chinese book on memory, one explicit group of images, each fixed in its own place and described in sequence. The first image was two warriors grappling, the second a tribeswoman from the west, the third a peasant cutting grain, the fourth a maidservant holding a child in her arms. True to his own injunctions about a simple way to begin a memory system, Ricci chose to place these images in the four corners of one specific room. This room was a reception hall, a fairly large formal space supported by pillars, which I take to be the entry way to the memory palace proper. Governor Lu or any beginner who was reading Ricci could follow him without difficulty on this first mental memory stroll; we can see them walking together to the door, entering the hall, and, turning to their right, perusing the images one by one.²⁵

Once one grew familiar with the methodology, however, one did not have the sole choice of building ever larger and larger clusters of rooms and chambers. One could increase the content of given structures by placing ever more images within them. The only danger here was that the space might become too cluttered for the mind to seize easily on all the images it contained. But with that one caution one could introduce articles of furniture into the room, place small decorative objects of

gold or jade upon occasional tables, and paint the walls themselves in glittering colors.²⁶ One could also use specific "pictures" to evoke the images, wrote Ricci, just as Quintilian had urged in the first century A.D., or as Ludovico Dolce had in mind in 1562 when he suggested as an example that certain works of Titian be remembered in all their intricate details by students interested in classical mythology.²⁷ Ricci clearly knew the mnemonic effect of vivid illustrations, and his letters show that he was not only aware of religious books like Jeronimo Nadal's *Commentaries on the Gospels*, copiously illustrated with woodcuts, which the Jesuits were publishing with the aim of making every important moment in Christ's life fresh and vivid in the viewer's mind, but he even had his own copy of Nadal with him in China and wrote to friends in Italy that he found it invaluable.²⁸

Just as Ricci left four memory images for his reception hall, so he left four religious pictures, each with a caption in his calligraphy and three of them embellished with his own commentaries: these were of Christ and Peter at the Sea of Galilee, of Christ and the two disciples at Emmaus, of the men of Sodom falling blinded before the angel of the Lord, and of the Virgin Mary holding the Christ Child. That these pictures have been preserved is due to Ricci's friendship with the publisher and inkstone connoisseur Cheng Dayue, who was introduced to him by a mutual friend in Peking in 1605. Cheng, who was about to publish a collection of Chinese calligraphy and graphics under the title of "The Ink Garden," was eager to include samples of Western art and handwriting, and requested Ricci to contribute some. Though Ricci, elaborately self-deprecating, confessed to Cheng that only "one ten-thousandth part" of Western culture could be of any interest to the erudite Chinese, he nevertheless consented, with the result that the following year his four pictures appeared along with his commentaries in Cheng's elegant volume.²⁹ Such religious pictures could be confidently expected to fix in Chinese minds the details of dramatic passages from the Bible, whether these were from moments in Christ's life or from antecedents in the Book of Genesis. If arranged in rigorous sequence,

like the memory images, they could be used to supplement the storage and retrieval mechanisms of the memory palace itself.

Despite Ricci's apparent self-confidence about the value of his memory system, such structures were beginning to be challenged in Europe well before he sailed to the East in 1578. In the 1530s Cornelius Agrippa, despite his interest in magic and in scientific alchemy, wrote in his book *Of the Vanitie and Uncertaintie of Artes and Sciences* that he felt the natural memory of men was dulled by the "monstrous images" concocted in mnemonic arts; the attempt to overload the mind with infinite pieces of information often "caused madness and frenzy instead of profound and sure memory." Agrippa saw a kind of puerile exhibitionism in this flaunting of knowledge. In the English translation of his work that appeared in 1569, this disgust comes through strongly: "It is a shameful thinge, and a shamelesse mannes proprietie to set out in al mens sighte, the readings of many thinges, like as Marchantes do their wares: whereas in the meane while the howse is emptie."³⁰ Religious thinkers like Erasmus and Melancthon saw these memory systems as going back to an earlier age of monkish superstition and felt that the systems were of no practical use.³¹ Rabelais, also in the 1530s, had used his marvelous powers of mockery further to discredit the memory arts. He described how Gargantua was taught by his tutor Holofernes to memorize the most abstruse grammatical works of his time, along with their full panoply of learned commentaries by such scholars as Bangbreeze, Scallywag, and Claptrap. The upshot, wrote Rabelais gravely, was that though Gargantua could indeed repeat the books he had learned "backwards by heart," and "became as wise as any man baked in an oven," when one wanted intelligent commentary from him "it was no more possible to draw a word from him than a fart from a dead donkey."³² By the end of the century Francis Bacon, despite his fascination with the power of *natural* memory to organize and analyze data, had developed a definitive critique of the artificial memory devices. Though he acknowledged the surface impressiveness of feats

that could be attained with memory training, calling them "of ostentation prodigious," Bacon concluded that the systems were fundamentally "barren." "I make no more estimation of repeating a great number of names or words upon once hearing," he wrote, "than I do of the tricks of tumblers, funamboloes, baladines: the one being the same in the mind that the other is in the body, matters of strangeness without worthiness."³³

But most Catholic theologians of Ricci's time, like Ricci himself, were not dissuaded by these dismissive arguments. They concentrated on the positive aspects of the system, ignoring the growing body of scholarship which proved that the key early text on memory systems, *Ad Herennium*, had in fact not been written by Cicero at all and continuing to make it a fundamental part of their curriculum.³⁴ It was Thomas Aquinas himself who had firmly implanted the idea that systems of memory were a part of ethics rather than merely an aspect of rhetoric, as they had usually been considered previously. In his commentaries on Aristotle, Aquinas described the importance of "corporeal similitudes"—or memory images in bodily form—in preventing "subtle and spiritual things" falling away from the soul. Oddly enough, Aquinas strengthened his arguments for use of memory-place systems by pointing out that Cicero in *Ad Herennium* had said we need "solicitude" for our memory images; Aquinas interpreted this as meaning we should "cleave with affection" to our memory images, and thus made it possible to apply mnemonic images to devotional and scriptural uses. The fact that *Ad Herennium* had said we need "solitude" to pick out our memory images, not "solicitude," was not noted for centuries. And Aquinas's slip—ironically, he had probably been quoting from memory in any case—led to the strengthening of a Christian mnemonic tradition that focused on memory arts as the means to marshal "spiritual intentions." Such an interpretation spread widely. For instance, the idea that memory systems were used to "remember Heaven and Hell" can explain much of the iconography of Giotto's paintings or the structure and detail of Dante's *Inferno*, and was commonplace in scores of books published in the sixteenth century.³⁵

In the time of Aquinas, and in the following two centuries, there developed a whole tradition of texts that sought to sharpen Christian devotion through evoking the imagination of believers, some of the most important of which, like William of Paris's twelfth-century *Rhetorica Divina*, reached back to Quintilian for inspiration.³⁶ Ludolfus of Saxony, a fourteenth-century devotional writer whom Ignatius of Loyola was later to read with fascination, used language of exceptional force. Ludolfus compelled his Christian readers to be present at the Crucifixion, pounding his words into the reader's ears as the nails pounded through Christ: "After all the nerves and veins had been strained, and the bones and joints dislocated by the violent extension, he was fastened to the cross. His hands and feet were rudely pierced and wounded by coarse, heavy nails that injured skin and flesh, nerves and veins, and also the ligaments of the bones."³⁷ In such moods, where "gospel time is made to suffuse present time," Ludolfus could tell the believer to proceed "with a certain devout curiosity, feeling your way, [and] touching each of the wounds of your Saviour, who has thus died for you"—wounds of which, according to Bridget of Sweden, whose work Ludolfus drew on, there were 5,490.³⁸ Ludolfus, a monastic Carthusian, urged that the active imagination must at all times be applied to Christ, "in walking along and in standing still, in sitting down and in lying down, in eating and in drinking, in talking and in keeping silent, when alone and when with others."³⁹ By the middle of the fifteenth century, the author of a book of devotions for girls was urging them to give to characters in the Bible—not excluding Christ himself—the faces of friends and acquaintances, so that they would be fixed in their memories. He told his young audience to place these figures in their own mental Jerusalem, "taking for this purpose a city that is well-known to you." Thereafter, "alone and solitary" in her chamber, each girl could undertake her devotions, reliving the Bible story by "moving slowly from episode to episode."⁴⁰

This vivid restructuring of memory was also a fundamental component of the edifice of discipline and religious training that the converted Spanish soldier Ignatius of Loyola developed for the members of

the Society of Jesus, which he founded in 1540; he had been marshaling his arguments in writing the early drafts of the *Spiritual Exercises*, which was to be published in its final form eight years later. In order that his followers might live the biblical narrative in all its force, Ignatius instructed them to apply their five senses to those scriptural passages that they were contemplating. At the simplest level, those practicing the exercises would call to mind the physical setting in which a given event took place, or what Ignatius called "an imaginative representation" of the place:⁴¹ for example, the road from Bethany to Jerusalem on which Christ traveled toward his passion, the room in which he held his last supper, the garden in which he was betrayed, the house in which Mary his mother waited after the Crucifixion.⁴² Within these contexts, said Ignatius, one could then move to a sharper picture by adding the sense of hearing: "Listen to what is being said by the people on the earth's surface, talking to each other, swearing and blaspheming." Contrast with this the words of the three divine persons of the Trinity, and listen to them as they say, "Let us bring about the redemption of mankind." After seeing and listening, one can proceed to involve the rest of the five senses in the act of memory: "Smell the indescribable fragrance and taste the boundless sweetness of the divinity. Touch by kissing and clinging to the places where these persons walk or sit, always trying to profit thereby."⁴³ If the five senses evoke the past in its diversity and bring it—contextually primed, as it were—into the present, it is the three faculties of memory, reason, and will that have the burden of deepening the significance of what is being contemplated, especially when the subject matter is not something visible in a conventional sense, as in the case of an awareness of sin. Here, said Ignatius, the "picture will be the idea, produced by an effort of the imagination, that my soul is a prisoner in this corruptible body and that my whole self, body and soul, is condemned to live amongst animals on this earth, like someone in a foreign land." (Though this was not written expressly for missionaries, one can guess the force the passage must have gained for Ricci as he lived out his life in China, struggling for periods of leisure to reinforce his spiritual life.) As Ignatius

phrased it, each of the three faculties could be employed in turn, with memory leading the way:

By an effort of my memory, I will recall the first sin, that of the angels; next, I will use my reason to think about it; then my will, striving to remember and think about all this in order to develop in myself a sense of utter shame, as I compare my numerous sins with the angels' one sin: that one sin brought them to Hell: how often have I deserved it for all my sins. The memory's part is to recall how the angels were created in grace, but refused to make the most of their free-will in honoring and obeying their Creator and Lord: they fell victims to pride, and their state of grace was perverted to one of evil will, as they were plunged from Heaven into hell. Using my reason in the same way, I will think about all this in greater detail: by my will I try to evoke the proper sentiments.⁴⁴

As each person practicing the exercises reflected on his own sins by placing them in the most domestic and intimate of contexts—seeing himself in the houses where he had lived at different times, thinking of all his personal relations with others, and reflecting on the various positions of service or authority he had held—so he could move from the contemplation of the angels' first sin to a panoramic vision of the great spiritual battle that pitted Christ and his forces against the armies of the devil.⁴⁵

The urgent calls of Ludolfus and Ignatius that the faithful Christian should incorporate these "memories" of an un-lived past into the spiritual present echoed not only Thomas Aquinas but also the *Confessions* of Augustine, written eleven hundred years before Ricci was born, for it was Augustine who had said: "Perchance it might be properly said, 'there be three times; a present of things past, a present of things present, and a present of things future.'"⁴⁶ Yet Ignatius's own Catholic contemporaries worried that he or his followers might be going too far in their invocation of claims to special insight into the divine realm. The bishop of Valencia complained that the *Spiritual Exercises* was little better than "mystery mongering" and was written under the in-

fluence of Illuminist ideas prevalent at the time.⁴⁷ Six priests who claimed, in 1548, that through the exercises they could obtain a "direct" communication with God were called for examination by the Inquisition: the inquisitors were worried by the priests' claim that "the Holy Spirit might come upon them as he once did upon the apostles."⁴⁸ Some Dominicans, in 1553, went so far as to suggest that Ignatius was "notoriously a heretic," charges that prompted Ignatius's friend Nadal (author of the *Contemplations* that Ricci introduced to China) to insist that Ignatius drew his ideas from Scripture, not from direct channels.⁴⁹ Conscious of these controversies, Claudio Acquaviva, as general of the order during Ricci's China service, was to downplay Ignatius's views of the "application of the senses" and refer to them as a "very easy mode," not to be compared to more complex forms of contemplation and prayer.⁵⁰

The precise line between religious experiences and so-called magical powers has always been a difficult one to draw. Some scholars have recently suggested that interconnections between religion and magic always lay in the words and incantations of the Mass itself, and in the music, the lights, the wine, the transformations that lie at its heart.⁵¹ Ricci's experiences in China show that there was, in the public mind, a natural presupposition that his skills derived from magical sources. On October 13, 1596, he wrote from the city of Nanchang to General Acquaviva in Rome. After recounting briefly the difficult negotiations he had followed in order to get permission not only to reside in Nanchang but also to buy a house there, Ricci described the crowds of distinguished Chinese literati who were now flocking to his house to congratulate him. Ricci listed the three major motives that he believed the Chinese had for these visits: their conviction that the Jesuits could turn mercury into pure silver; their desire to study Western mathematics; and their eagerness to learn his mnemonic system.⁵² The list is completely believable in the context of the European intellectual and religious life of Ricci's time, when memory systems were combined with numerological skills and the arcane semiscientific world of alchemy to give the adept a power over his fate that mirrored the power of con-

ventional religion. We must remember that if at one level Ricci's career makes sense only in the context of an aggressive Counter-Reformation Catholicism, as part of an "expansion of Europe" in the later sixteenth century that took place under the guns of Spanish and Portuguese men-of-war, it also makes sense only in a far older context, pre-Renaissance in many aspects, a context reaching back through the Middle Ages to classical antiquity, to worlds where the priests of the Christian religion shared the tasks of consoling mankind with the "cunning men" who dealt in magic, alchemy, cosmography, and astrology.⁵³

The protracted and complex debates held by order of the Papacy at the Council of Trent between 1545 and 1563 may have solved some of the most difficult problems raised by the leaders of the Catholic church, who were responding both to their personal awareness of the church's internal decay and to the searching questions of their Protestant opponents, but these "solutions" reached only a fraction of the people. Others continued to hold their own idiosyncratic interpretations: thus God had emerged from a state of chaos in which the four elements of earth, water, fire, and air were already present, according to one North Italian miller questioned by the Inquisition in 1584. "Who moves the chaos?" the inquisitor asked, and the miller responded, "It moves by itself."⁵⁴ "My mind was lofty and wished for a new world," said the same miller, explaining that much of his disquiet came from the vision of other lands and peoples that he had absorbed from John Mandeville's tales of his travels in Africa and Cathay.⁵⁵ The miller can stand as one humble exemplar of all those men and women in the sixteenth century who continued to search for meanings on their own because neither Protestant nor Catholic reformers had succeeded in convincing them that they could explain either the ultimate mysteries of the world's origins or such localized yet baffling phenomena as intense mental depression, catastrophic sudden death of humans and animals, the loss of cherished possessions, or the failures of the harvest.⁵⁶

And so the lines between aspects of magic and religion continued to be blurred. The miller developed his four-elements theory to the point

where God became the air, Christ the earth, and the Holy Spirit the water, while the fire raged everywhere on its own.⁵⁷ His poorer contemporaries dreamed of a universe in which rivers were shored up with embankments of ricotta cheese while the heavens rained down ravioli and marzipan.⁵⁸ Ricci and his friends, even if they denied any magical force to the objects, tossed tiny talismans made of the wax from the paschal candles of Rome into the stormy seas as they rounded the Cape of Good Hope in 1578, and outside the walls of Peking in 1601 Ricci kept always with him some grains of soil from the Holy Land and a tiny cross made, he believed, from fragments of the true cross on which Christ had died.⁵⁹ And in ostensibly "reformed" England, so numerous were the magic practitioners that in one county during the reign of Queen Elizabeth it has been proved that no one lived more than ten miles away from some "cunning man."⁶⁰

In a world used to looking carefully at the sky, each phase of planetary motion, each waxing of the moon, each stellar appearance was carefully tracked, and as carefully analyzed for possible significance on human fate. Educated men and women could be devout members of the Catholic church while still keeping room in their minds for what one historian has called the alternative systems of "undiscovered occult influences" that "pulsated" in their Neoplatonic universes.⁶¹ Within many of these systems it was a truism that special strengths accrued to the individual who could fuse the forces of the cosmos with the mnemonic prowess of his own brain. Quite a strong level of memory, even among the poor and uneducated, was still taken for granted in a culture that remained largely oral. Montaigne, for instance, on his Italian journey of 1581, described a group of peasants in the fields near Florence, their girl friends at their sides, reciting lengthy passages of Ariosto as they strummed on their lutes.⁶² Yet at the same time, possession of too strong a memory could swiftly lead one's neighbors to suspect one of having magical powers, as happened with Arnaud du Tilh in southern France during the midsixteenth century.⁶³ For Shakespeare's audiences it would still have been commonplace to know how

to use memory and how to strengthen it. When Ophelia, after Hamlet has killed her father, walks in front of her brother, Laertes, and cries, "There's rosemary, that's for remembrance; pray you, love, remember," she is not simply mad; she is also steeling Laertes for an act of vengeance by invoking the widely held belief, carried in many mnemonic treatises of the day, that rosemary was the sovereign herb for strengthening the memory.⁶⁴

While Ricci was a schoolboy, several charges of practicing black magic were brought against the clergy of his hometown of Macerata, and these might have been connected to some misuse of mnemonic arts, though we don't have the details of what the practitioners were trying to accomplish.⁶⁵ What we do know is that all through the sixteenth century "astrologically centered mnemonic systems" were being constructed with extraordinary care in such cities as Venice and Naples and not only used at home but also exported by their eager creators to France and England, among other countries. These systems organized the forces of the universe into "memory theaters," concentric diagrams, or imaginary cities in such a way that those forces could be consulted directly and drawn upon, making the practitioner of the art a "solar magus" of potentially great power. The "theater" created by the remarkable Italian scholar Camillo in the 1540s suggests the range: in the foreground were piles of little boxes, intricately arranged and jammed with all the works of Cicero; rising away into the distance were arrays of cosmic images designed to show the "universe expanding from First Causes through the stages of creation," so that the theater master would be like a man gazing down upon a forest from a high hill, able at last to understand both the individual trees and the shape of the whole. As Camillo explained, "This high and incomparable placing not only performs the office of conserving for us the things, words and acts which we confide to it, so that we may find them at once whenever we need them, but also gives us true wisdom."⁶⁶

Nor was such wisdom confined to the world of words or the stage. It ran on a score of trails throughout the theory and practice of Renais-

sance architecture, where the "hidden lines" that dictated the perfect spaces could give meaning to a building by expressing ideas of gravity or love, and where the perfect proportions of the human figure could be transposed with cosmic force into stone.⁶⁷ It lay at the heart of Renaissance music, which had inherited a process by which mnemonic strength, first manifested in the alphabet and rhyme, was fixed firmly in the melodic line and in which the two attributes of music—as number-mysticism and as science—could flow, in the minds of serious theorists, either into realms of sexual force and regeneration or into those of a specific international discourse. So Kepler, at the same time that he was making his remarkable discoveries on planetary orbits and immersing himself in the work of alchemists at Emperor Rudolph's court, could develop an interpretation that had the interval of the major third in a given piece of music representing male sexual fulfillment while the minor third stood for the receptive female,⁶⁸ whereas Nicolo Vicentino, in a treatise of 1555 on his new six-manual harpsichord, the *archicembalo*, could write that his new instrument would be able to produce the sounds of German, French, Spanish, Hungarian, and Turkish. "The inflections and intervals that all nations of the world use in their native speech do not proceed only in whole and half tones, but also in quarter tones and even smaller intervals, so that with the division of our harpsichord we can accommodate all the nations of the world."⁶⁹ Ricci, on first seeing Chinese ideographs in Macao in 1582, was to be similarly struck by their incredible potentiality for serving as universal forms that could transcend the differences in pronunciation that inhered in language.⁷⁰

Disparate though these images and examples are, they can serve to underline the fundamental variety of thoughts about memory and its literal and transformative powers that coexisted in what is loosely called the Counter-Reformation period. They make it hard to believe that, as Ricci used his mnemonic methodologies alongside his Western scientific learning and his profound theological training to woo the Chinese people away from their amalgam of Confucianism, Buddhism,

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Invisible
Cities

and Taoism, he was unmindful of the powers over man and nature that his European contemporaries ascribed to mnemonic arts.

The four memory images that have survived in Ricci's treatise are but a tantalizing hint of the riches stored in his memory palace, just as his four religious pictures represent but a fraction of the Catholic iconography at the heart of the religion to which he tried to convert the Chinese. But since it is so astonishing that even this much has been preserved, and since Ricci chose with care the images and pictures that have come down to us, I have chosen in my turn to build this book around these eight distant fragments. Ricci told Cheng Dayue in 1606, "the whole point of writing something down is that your voice will then carry for thousands of miles, whereas in direct conversation it fades at a hundred paces." He was right, and it is through these accidental survivals that we can enter his past. We can be confident that Ricci would approve this procedure, for as he also said to Cheng Dayue:

Those who will live one hundred generations after us are not yet born, and I cannot tell what sort of people they will be. Yet thanks to the existence of written culture even those living ten thousand generations hence will be able to enter into my mind as if we were contemporaries. As for those worthy figures who lived a hundred generations ago, although they too are gone, yet thanks to the books they left behind we who come after can hear their modes of discourse, observe their grand demeanor, and understand both the good order and the chaos of their times, exactly as if we were living among them.⁷¹

To late Renaissance humanists, the men who had lived in the great days of the Roman Empire were the models for this discourse and demeanor. Those were the days in which Quintilian had written his words on memory, and there is a gentle echo of that familiarity in the fact that Ricci's cycles of memory images began with two warriors grappling, while the pictorial cycle began with the sea of Galilee:

Quintilian had suggested war and the sea as the first two things one could remember, through the images of a spear and an anchor.⁷²

As we travel with Matteo Ricci, we should remember one other link between his classical past and his Chinese present. The best-known Roman memory text stated that one must put certain marks in one's flow of images, signposts, as it were, at every fifth or tenth grouping, such as a golden hand to remind one of the number five or a friend with a name like Decimus to evoke the number ten.⁷³ Ricci was able to integrate this idea into the flow of his Chinese images and to combine it with his central Christian goal of conversion—to which all his intellectual ingenuity was directed—by a stroke of linguistic brilliance that was made possible only by the nature of the Chinese ideographic script. Instead of the golden hand or the man named Decimus, he proposed to the Chinese that at every tenth memory place they should simply insert a memory image of the Chinese ideograph for "ten."⁷⁴ The wonderful elegance of this idea came from the fact that the ideograph for ten, written 十 in Chinese, was used by the Chinese to express many other objects or places in which two lines were crossed, as with a wooden frame or a crossroads. For this reason the earliest Nestorian Christians, who had come to China in the seventh century, had taken "ten" as their word for the cross of Christ, a usage made official by the Mongol conquerors of China in the thirteenth century and adopted by Ricci and the sixteenth-century Jesuits in their turn.⁷⁵ Thus as the Chinese of the Ming dynasty followed Matteo Ricci through his reception hall, past his pictures, and on into the recesses of the memory palace, they were guided not only by the logic of the decimal system but also by the implacable symbolism of the sign of the cross itself.

NOTES

ONE BUILDING THE PALACE

1. Ricci, *Jifa*, pp. 20–21. The only surviving versions of this *Jifa*, Ricci's *Treatise on Mnemonic Arts*, list Ricci as author, Zhu Dinghan as collator, Vagnoni (Gao Yizhi, Pfister no. 26) and Sambiasi (Bi Fangji, Pfister no. 40) as editors. (For locations, see *Fonti Ricciane*, 1/376 n. 6.) Zhu Dinghan, a Christian convert and native of Shanxi province, wrote the only extant preface, in which he says "Mr. Gao" was the main transmitter of Ricci's work on memory. I assume this Gao to be Gao Yizhi, the name Vagnoni adopted after his return to China in 1624 when he settled in the same Shanxi town where Zhu Dinghan was living. Vagnoni had taught rhetoric for five years in Turin after his novitiate and later became a brilliant Chinese-language scholar. He probably obtained a copy of Ricci's text when in Nanjing and then revised it in Macao, carrying it to Shanxi and introducing it to Zhu Dinghan sometime after 1624. (See Pfister, pp. 85 and 89, for the details of Vagnoni's life that support such a contention.) From the condition of the current text one would guess that Vagnoni left Ricci's basic six-chapter form unchanged but added the lengthy series of further exemplars at the end of ch. 6, pp. 28–31 (reprint pp. 63–69). Vagnoni or Zhu may well also have ex-

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- panded the lists of examples running through chs. 4–6, since Zhu notes in his preface that Ricci was often rather unclear in his explanations. As fellow Jinjiang residents, Vagnoni and Zhu were natural collaborators, though it is still hard to fix the dates exactly. Vagnoni died in 1640, but Zhu was still living a year later, as he is noted as an honorary licentiate for 1641 (*Jiangzhou zhi*, 8/29). The role of Sambiasi in editing the book is not clear; he did travel to Shanxi in 1628 (Pfister, p. 138) but was not in Jinjiang long, if at all. The imprimatur was granted by Emmanuel Diaz the younger (Pfister, p. 31), who was made vice-provincial in 1623, dying in Hangzhou in 1659.
2. *Jifa*, pp. 21–22.
 3. This text is in *Jifa*, pp. 17–18, with one ideograph illegible in the last phrase. This is clearly Ricci's rendering of the famous passage from Cicero's *De Oratore*, 2/86, also cited in *Lyra Graeca*, 2/307. The Cicero original is discussed by Frances Yates in her *Art of Memory*, pp. 17–18.
 4. The main outlines of Ricci's career are given in English by Wolfgang Franke in the *Dictionary of Ming Biography* (hereafter cited as *DMB*), pp. 1137–44. More extended treatments are in George Dunne, *Generation of Giants*; Vincent Cronin, *Wise Man from the West*; and George Harris, "The Mission of Matteo Ricci." The French biography in Pfister, *Notices*, pp. 22–42 (no. 9), is still useful, as is the extended survey by Henri Bernard, *Le Père Matthieu Ricci et la Société Chinoise de son temps*. A recent Italian biographical sketch with good bibliography is Aldo Adversi's "Matteo Ricci" in *Dizionario Bio-Bibliografico dei Maceratesi*; the most extended Italian biography is Fernando Bortone's *P. Matteo Ricci, S.J.*, illustrated with maps, photographs, and drawings. All of these works draw massively on the great central source, Ricci's own *Historia*, as transcribed first by Tacchi Venturi and republished, with corrections, by Pasquale d'Elia as *Fonti Ricciane*, cited here throughout as *FR*. The Trigault version of Ricci's *Historia* (translated by Louis Gallagher) is full of Trigault's distortions, deletions, and additions to the original and is not a reliable reflection of Ricci's own views. A recent Chinese essay by Lin Jinshui, "Li Madou zai Zhongguo," unfortunately relies very heavily on this Trigault-Gallagher version but shows a thorough grasp of the basic issues. A good survey of current Ricci scholarship in Taiwan is provided in the special issue of *Sbenxue lunji (Collectanea Theologica)*, no. 56, Summer 1983, which is entirely given over to a collection of essays on Matteo Ricci's China mission.
 5. Details on the composition of the *Friendship* book (the *Jiaoyou lun*) are

- given in Ricci's letters, edited by Tacchi Venturi under the title *Opere Storiche*, vol. 2 (hereafter cited as *OS*); see p. 226, letter of Oct. 13, 1596, to General Claudio Acquaviva. In this letter Ricci refers to "l'anno passato" as the time of composition, and says he wrote the book "as an exercise" (*per esercizio*). Since the book is not mentioned as finished in Ricci's Nov. 4, 1595, letter to Acquaviva (*OS*, p. 210), it must have been completed later in November or in December. Despite this rather clear evidence from the basic sources, the dates of composition have been argued over with considerable bitterness by Pasquale d'Elia, "Further Notes," especially p. 359, and by Fang Hao, "Li Madou *Jiaoyou lun xinyan*" and "Notes on Matteo Ricci's *De Amicitia*." Fang Hao's charges against d'Elia of linguistic incompetence ("Li Madou *Jiaoyou lun*," p. 1854) are more than matched, if not exactly quashed, by d'Elia's countercharge of Fang's blatant plagiarism, in "Further Notes," pp. 373-77.
6. *OS*, p. 211, Nov. 4, 1595: "ad alcuni ho cominciato ad insegnare la memoria locale" ("I have begun to teach various people the memory place [system]").
 7. *FR*, 1/376. As Ricci writes in *OS*, p. 224, to Acquaviva, on Oct. 13, 1596: "Per la memoria locale . . . feci in sua lingua e lettera alcuni avisi e precetti in un libretto, che diedi al vicerè per il suo figliuolo." (That there were in fact three sons is stated by Ricci in *FR*, 1/363.)
 8. There is a biography of Lu Wangai in his fellow Pinghu townsman Guo Tingxun's *Benchao fensheng renwu kao*, juan 45, pp. 32b-33b. Further details on his career and accomplishments are given in the *Pinghu xianzhi*, 15/37 (reprint pp. 1431-32); *ibid.*, 13/5 (reprint p. 1176) shows him as twenty-first in the second class in the *jinsbi* exam of 1568.
 9. For the children's exam successes, see the governor's son Lu Jian's *jinsbi* degree of 1607 in *Pinghu xianzhi*, 13/7a (reprint p. 1179) and other Lus clearly of the same generation in *ibid.* and *Jiaxing fuzhi*, lists in 45/75-85; also biographies in juan 58. On mnemonic rhymes for alchemists, mechanics, ship pilots, and astronomers, see Joseph Needham, *Science and Civilization in China*, vol. 5, pt. 4, p. 261; vol. 4, pt. 2, pp. 48, 528; vol. 4, pt. 3, p. 583. An assemblage of famous Chinese mnemonic masters is given below in ch. 5.
 10. *OS*, p. 224, Nanchang, Oct. 13, 1596.
 11. *OS*, p. 235, to Lelio Passionei, Sept. 19, 1597.
 12. *Monumenta Paedagogica*, p. 350, where "Cypriani rhetorica" is recommended "pro classe inferiori."

13. Soarez, *De Arte Rhetorica*, pp. 58-59.
14. Compare Pliny, *Natural History*, bk. 7, sect. 24 (Loeb ed., p. 563), with Ricci's *Jifa*, p. 14. The *Monumenta Paedagogica* of 1586, p. 350, show Pliny's *Natural History* as an assigned book in the Jesuit school. (This same passage of Pliny is the springboard for the brilliant story by Jorge Borges, "Funes the Memorious.")
15. *Ad Herennium*, p. 221.
16. Quintilian, *Oratoria*, 4/223. The "impluvium" was the water storage tank in the center of a Roman home.
17. I have here elaborated in the visual terms common to the Renaissance tradition three of the verbal mnemonics that are given as examples in *Dictionary of Mnemonics*: p. 18, bones, no. 1; p. 21, cell division, no. 2; p. 57, nerves. I have made the Zulu and the French lady singular, as would have been favored in Renaissance mnemonics.
18. Stahl and Johnson, *Capella*, 2/7, and n. 18. Yates, *Art of Memory*, pp. 63-65.
19. Stahl and Johnson, *Capella*, 2/156-57 (with minor changes) and p. 156 n. 13.
20. Smalley, *English Friars*, p. 114, citing Ridevall's complete jingle "Mulier notata, oculis orbata, / Aure mutilata, cornu ventilata, / Vultu deformata, et morbo vexata"; Yates, *Art of Memory*, pp. 105-6, has a brilliant gloss on Smalley's use of Ridevall's passage.
21. Ricci describes his memory feats in *OS*, p. 155 and *FR*, 1/360 n. 1. He gives the number of ideographs in *OS*, p. 184. Chinese witnesses include Li Zhizao in his preface to Ricci's *Jiren shipian*, p. 102, and Zhu Dinghan, citing Xu Guangqi in his preface to Ricci's *Jifa*. Though Zhu is not included in the indexes to the Ming histories, mention of him can be found in the *Jiangzhou zhi* (ed. of 1776), 8/29, where he is listed as a senior licentiate, second class (*suigong*) of 1641.
22. *FR*, 1/377n., suggests Panigarola as Ricci's source; see the Panigarola manuscript, Macerata. Frances Yates, *Art of Memory*, p. 241, cites a Florence manuscript of 1595 on Panigarola's powers.
23. Ricci, *Jifa*, p. 22.
24. Yates, *Art of Memory*, pp. 62 and 26.
25. Ricci, *Jifa*, pp. 16-17, 22. I translate the Chinese word *shi* as "reception hall."
26. *Ibid.*, pp. 27-28.
27. *Ibid.*, p. 22; Quintilian, *Oratoria*, 4/223; on Dolce, see Yates, *Art of Memory*, p. 166.

28. OS, pp. 260 and 283. For Nadal's work, see the discussion by Guibert, *Jesuits*, pp. 204-7.
29. Ricci, *Li Madou ti baoxiang tu*, sec. 2, p. 4; Cheng Dayue, *Chengshi moyuan*, juan 3, sec. 2; Duyvendak, "Review of Pasquale d'Elia," pp. 396-97.
30. Agrippa, tr. Sanford, p. 25 recto.
31. Yates, *Art of Memory*, p. 133.
32. Rabelais, *Gargantua*, tr. Cohen, ch. 14, pp. 70-72; see also the fruitful discussion in Thomas Greene, *Light in Troy*, p. 31.
33. Bacon, "Of the Advancement of Learning Divine and Human," bk. 2, sec. 15, 2, in *Selected Writings*, p. 299. The positive role ascribed to memory for the study of new science is elaborated by Paolo Rossi in *Francis Bacon*, pp. 210-13.
34. *Monumenta Paedagogica*, edition of 1586, continues to list it, p. 350. The first dismissals of Cicero's attribution as author came in 1491 (Yates, *Art of Memory*, pp. 132-33).
35. Yates, *Art of Memory*, pp. 72-104, especially p. 86 on the misreading of "solitudo" for "sollicitudo," and p. 101 on Giotto. Aristotle's original text on memory has been translated and carefully glossed by Richard Sorabji in *Aristotle on Memory*.
36. Guibert, *Jesuits*, pp. 167-68.
37. As translated in Bodenstedt, *Vita Christi*, p. 121.
38. Conway, *Vita*, pp. 38 and 127; Bodenstedt, *Vita Christi*, p. 50.
39. Cited in Conway, *Vita*, p. 125.
40. See the 1454 "Garden of Prayer" cited in Baxandall, *Painting and Experience in Fifteenth-Century Italy*, p. 46.
41. Ignatius of Loyola, *Exercises*, par. 47. In the following pages, I try to heed the injunction given by Guibert, in *Jesuits*, p. 167, that discussing Ignatius in terms of his method is like defining a locomotive by its color; I also note Hugo Rahner's comments in *Ignatius the Theologian*, pp. 181-83.
42. Ignatius, *Exercises*, pars. 192, 201, 220. Rahner, *Ignatius*, p. 189, discusses these locations as symbols.
43. Ignatius, *Exercises*, pars. 107, 108, and 124-25.
44. *Ibid.*, par. 50.
45. *Ibid.*, pars. 56, 140-46. For a counter-commentary on Ignatius and the senses see Barthes, *Sade, Fourier, Loyola*, pp. 58-59.
46. Augustine, *Confessions*, p. 266.
47. Rahner, *Ignatius*, p. 158; Wright, *Counter-Reformation*, p. 16.

48. Rahner, *Ignatius*, p. 159.
49. *Ibid.*, pp. 161-62.
50. *Ibid.*, p. 191.
51. Walker, *Spiritual and Demonic Magic*, p. 36 and pp. 70-71 on Ficinan magic; Thomas, *Decline of Magic*, p. 33.
52. OS, p. 223.
53. Thomas, *Decline of Magic*, pp. 178-80.
54. Ginzburg, *Cheese and the Worms*, p. 56.
55. *Ibid.*, pp. 13 and 29.
56. Thomas, *Decline of Magic*, pp. 75-77; examples cited from p. 14; ch. 8; and p. 536.
57. Ginzburg, *Cheese and the Worms*, p. 105.
58. *Ibid.*, pp. 83-84.
59. See ch. 3, below, on the sea and the talismans; FR, 2/121 on the relics and the cross composed of "molti pezzi della Croce di Cristo benedetto." Thomas, *Decline of Magic*, p. 31, notes the ongoing faith in the power of the wax "Agnus Dei."
60. Thomas, *Decline of Magic*, p. 247.
61. *Ibid.*, pp. 333 and 578.
62. Montaigne, *Journal de Voyage*, p. 349.
63. Davis, *Return of Martin Guerre*, p. 37; see her other comments on magic and memory, pp. 60, 76, 102, 107.
64. *Hamlet*, act 4, scene 5, lines 173-74; see the recipes in Grataroli, *De Memoria*, p. 58, and in Fulwood's 1573 English translation at p. E5.
65. Paci, "Decadenza," pp. 166, 194, and 204 n. 400.
66. Yates, *Art of Memory*, quotation on p. 147; memory theater, p. 136; Camillo as "Magus," p. 156. See also Walker, *Spiritual and Demonic Magic*, pp. 141-43, on Camillo, and pp. 206 and 236 for Campanella and Pope Urban VIII. Yates, *Art of Memory*, chs. 11, 13, 14, details Giordano Bruno's system. The coincidence of Bruno's heresy trial with that of the miller Menocchio, mentioned above, is noted in Ginzburg, *Cheese and the Worms*, p. 127.
67. Hersey, *Pythagorean Palaces*, p. 84 on "linee occulte," and pp. 96-105 on the human figure.
68. Winn, *Unsuspected Eloquence*, pp. 51, 58-59; Walker, *Studies in Musical Science*, pp. 1 and 2, 53; p. 67 for an analysis of the sexual images in Kepler's *Harmonice Mundi*.
69. Winn, *Unsuspected Eloquence*, p. 167, and quotation on pp. 178-79.
70. OS, pp. 27-28, letter to Martin de Fornari, Macao, Feb. 13, 1583. For

Acosta's 1590 view of Chinese ideographs as "ciphers designed to jog the memory," see Lach, *Asia in the Making of Europe*, vol. 1, bk. 2, pp. 806-7.

71. Ricci, *Li Madou ti baoxiang tu*, sec. 2, pp. 1b-2. See also Laufer, "Christian Art in China," pp. 111-12; Duyvendak, "Review," pp. 394-95.
72. Quintilian, *Oratoria*, 4/221 and 229.
73. *Ad Herennium*, p. 211; Yates, *Art of Memory*, p. 23.
74. Ricci, *Jifa*, p. 22.
75. Examples given in *FR*, 1/112 n. 5 and 113 n. 6. Barthes, *Sade, Fourier, Loyola*, p. 28, discusses the satiric obverse of this in the Sadian order of the rosary, where the old nuns are arranged by "decades."

TWO

THE FIRST IMAGE: THE WARRIORS

1. Ricci, *Jifa*, p. 16, for the image. L. S. Yang, "Historical Notes," p. 24, quotes the *Tso-chuan* interpretation on the components of *wu* being "to stay" and "the spear."
2. Ricci, *Jifa*, pp. 52-61.
3. *Ibid.*, pp. 23-28.
4. Paci, "Le Vicende," pp. 234-37.
5. Paci, "Decadenza," pp. 204-7, especially the detailed n. 403 on p. 204. The Riccis killed were Francesco in 1547 and Costanza in 1588. The peacekeeping attempts are listed on p. 205 nn. 404-7.
6. Paci, "Vicende," p. 265 n. 642.
7. *Ibid.*, pp. 264-68.
8. Delumeau, *Vie économique*, 1/40, 44, 94. On p. 105 Delumeau mentions a "G. Battista Ricci of Loretto" being in charge of the Marche transport routes after 1587. This is the same name as Ricci's father, though the Loretto registration makes the identification unsure.
9. Paci, "Vicende," pp. 238-39.
10. *Ibid.*, pp. 249-50.
11. Pastor, *History of the Popes*, 14/152-67; Paci, "Vicende," pp. 250-53.
12. Paci, "Vicende," p. 231.
13. *Cambridge History of Islam*, 1A/328; Paci, "Vicende," p. 253.
14. Paci, "Vicende," pp. 257-61.
15. Robert Barret, *The Theorie and Practike of Moderne Warres* (London,

- 1598), p. 75. This passage is cited, with one or two small changes in transcription, by J. R. Hale in his chapter on "Armies, Navies and the Art of War" in *New Cambridge Modern History*, 3/194.
16. Paci, "Vicende," pp. 256-57.
17. See the excellent discussion by J. R. Hale in *New Cambridge Modern History*, 3/196-97.
18. Paci, "Vicende," p. 250 n. 500.
19. Ricci and Xu Guangqi, *Jibe yuanben*, p. 3 (reprint pp. 1933-34); also translated in d'Elia, "Presentazione," pp. 183-84, and Moule, "Obligations," pp. 158-59.
20. The passage appears both in Ricci's *Jiren shipian*, p. 5b (reprint p. 126) and his *Tianzhu shiyi*, juan shang, p. 24 (reprint p. 423).
21. *New Cambridge Modern History*, 3/199-200; Essen, *Alexandre Farnèse*, 4/55-62. A picture of the bridge is in plate 3, facing p. 22, and of the explosion in plate 4, facing p. 60. A second ship, similarly prepared, burned out harmlessly on the shore.
22. Paci, "Vicende," pp. 259-61 on Maceratan troops; Gentili and Adversi, "Religione," p. 51, on the wounding of Fra Ruggero.
23. See O'Connell's vivid account in *Counter Reformation*, pp. 195-203; and Paci, "Vicende," pp. 259-61 for Maceratans in the battle.
24. Groto, *Troffeo*, preface on his tour of the fleet, Section A on the sub-fleets and their commanders, followed by a 120-page anthology of poems in Don John's honor. See also the Greek and Roman analogies in Pompeo Arnolfini's *Ioan. Austriaco Victori Dicitum* (Bononiae: Ioannis Rossii, 1572).
25. See the fascinating example of such paintings reproduced in Sakamoto, "Lepanto," plates 3-6; Sakamoto traces the original print back to a Cornelis Cort engraving from a Giulio Romano drawing. Montaigne noticed a Lepanto victory painting hanging near the St. Sixtus chapel in Rome (*Journal de Voyage*, p. 226).
26. L. A. Florus, *Epitome of Roman History*, pp. 113-15 (correcting misprint); Ricci's three schoolboy books are given in *FR*, 2/553n.
27. Pastor, *History of the Popes*, 18/429-32.
28. *Ibid.*, pp. 433-34, 444.
29. Schütte, *Valignano's Mission*, pp. 76-79, citing Valignano's letter of 1574.
30. *Ibid.*, p. 75, and Brooks, *King for Portugal*, pp. 9-10.
31. *FR*, 2/559, n. 4.